APPENDIX A: PRE-TASK HAZARD ANALYSIS PROCESS

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PRE-TASK HAZARD ANALYSIS PROCESS

1.0 PURPOSE AND SCOPE

A. This procedure establishes requirements for preparing a Pre-Task Hazard Analysis (PTHA) for construction projects at the Government's Lawrence Livermore National Laboratory (LLNL).

B. Description: The PTHA is a task-driven process designed to ensure that every task receives proper safety planning prior to starting work. The PTHA shall become part of the daily work authorization for all work activities.

C. Intent: The PTHA is a task-and-time-specific process that supplements other processes in place to help foster safe, timely, and quality work at the jobsite. It shall be developed as a team effort by Contractor's work crew and superintendent before any task is begun. The intent is to systematically plan specific tasks to be conducted in a safe and effective manner. The PTHA does not replace procedures set forth in Contractor's site safety program, but reinforces particular aspects of safety pertaining to specific day's work.

2.0 RESPONSIBILITIES

A. Implementation of the PTHA process is the responsibility of Contractor's management and field teams and the Government's project team. Authority to perform identified tasks may be delegated to other qualified personnel, but responsibility remains with those named above.

B. Contractor's Management Team: Contractor's management team (project manager and superintendent) is responsible for:

B.1 Ensuring adequate training in the PTHA process for all personnel working at the construction site.

B.2 Monitoring content of completed PTHA forms for quality and completeness.

B.3 Reporting PTHA worksheet content to the Government on a monthly basis.

C. Contractor's Field Team (superintendent and work crew):

C.1 Contractor's Field Team (superintendent and work crew):

C.1.a Becoming knowledgeable of the PTHA process.

C.1.b Providing on-the-job training for Contractor's work crew.

C.1.c Conducting meetings at the start of each new task or shift to lead the work crew through the job-planning process and development of the PTHA worksheet.

C.1.d Documenting the PTHA using the attached worksheet.

C.2 Contractor's Work Crew: Contractor's work crew is responsible for:

C.2.a Becoming knowledgeable of the PTHA process.

C.2.b Completing necessary training in the PTHA process.

C.2.c Participating in preparation of the worksheet at the start of each new task or shift.

C.2.d Conducting work activities in accordance with the PTHA.

D. Government Project Team (project manager, construction manager, and construction inspector:

D.1 The Government's project manager is responsible for:

D.1.a Ensuring the project team members are trained in the PTHA process.

D.1.b Making provisions for adequate Contractor training and proper implementation of the PTHA process.

D.1.c Reviewing a sampling of Contractor's completed PTHA forms on a routine basis for appropriate content.

D.2 The Government's construction manager is responsible for:

D.2.a Reviewing Contractor's completed PTHA worksheets for consistency and adequate coverage.

D.2.b Continuously monitoring the overall PTHA process for effectiveness and informing the project manager and other team members of its findings.

D.2.c Identifying any additional training needs for Contractor's superintendent or work crew.

D.3 The Government's construction inspector is responsible for:

D.3.a Conducting training of Contractor personnel in the PTHA process.

D.3.b Field monitoring the PTHA process to assure Contractor's work crews comply with the PTHA requirements.

3.0 PROCEDURE

A. The sequence of action steps in the PTHA process and responsible individuals for each step are as described below.

B. Identify Work Area and Task: Generally, the work to be performed will be covered in Contractor's site-specific safety plan. The PTHA shall cover specific tasks to be performed within a shift in a particular work area. Note: A clear understanding of what the job entails from beginning to end is essential for an accurate and complete PTHA.

C. Develop a Safe Plan of Action: Contractor's work crew assigned to perform the work shall develop the PTHA during the PTHA meeting, with guidance from Contractor's superintendent. Contractor's superintendent shall lead the work crew as they plan their work for the shift and solicit their participation in identifying hazards and hazard control measures, such as personnel protective equipment (PPE), required training, permits, procedures, and like items.

D. Document PTHAs: Contractor's superintendent shall document PTHAs using the attached worksheet. Each member of Contractor's field team shall sign the completed worksheet. Signatures indicate the individuals have participated in development of the worksheet, understand the hazards, and agree to follow the completed worksheet. If Contractor's field team determines the scope of work and conditions have not changed from a previously completed PTHA, that PTHA may be reused. Contractor's field team shall, however, sign the PTHA worksheet each time it is used.

E. Conduct PTHA Meetings: At least daily, and whenever a task presents a change of hazards from tasks under the currently used PTHA, Contractor's superintendent shall conduct a PTHA meeting. This is a brief (generally not more than 10 minutes) safety meeting to discuss tasks to be conducted during the work shift. When a task is continued from a previous day, the PTHA meeting shall include a review of the current PTHA and consideration of any new hazards or conditions that could exist. The PTHA meeting may be combined with a "tool-box" meeting or "morning safety" meeting; however, the PTHA meeting shall include a review of the PTHA currently in effect, or development of a new worksheet, and sign-off by each worker and the superintendent as noted in paragraph C above.

F. Post Completed PTHA Worksheets: Contractor's superintendent shall post the completed worksheet immediately adjacent to the work area such that anyone may review the form throughout the work shift. In case of an incident, the PTHA shall be immediately evaluated for work conditions and procedures.

G. Retain Completed PTHA Worksheets: Contractor's superintendent shall retain all PTHA worksheets. Furnish signed and dated copies of all worksheets to the Government's construction manager upon completion of the form and again at completion of the tasks described in the worksheet.

H. Review the PTHA Process: Contractor shall verify the content and quality of the PTHA worksheets completed by its employees and lower-tier subcontractors. The Government's construction manager will utilize appropriate sampling techniques to monitor the quality of completed worksheets.

4.0 DOCUMENTATION

Each PTHA shall be documented using the attached form. Contractor shall retain hard copies of each worksheet for the duration of the activity. The Government's construction manager will also retain a copy of all PTHA records.

END OF PRE-TASK HAZARD ANALYSIS (PTHA) PROCESS
(Checklist and sample worksheet follow.)

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CONTRACTOR PRE-TASK HAZARD ANALYSIS WORKSHEET

ISM

Work Request #_____ **Task**_____ **Location of Task**_____ **Date** _____

MAJOR WORK STEPS OF TASK	POTENTIAL HAZARDS	CONTROLS / SAFETY PLAN	TOOLS REQUIRED

Task Specific Required Inspection	
Daily Lift Inspection	Inspected By/Name
Harness Inspection	Inspected By/Name
Fire Extinguisher Inspection Current	Inspected By/Name
Cords – Properly Inspected	Inspected By/Name
All Existing Systems Enabled	Inspected By/Name

Work Area Questions

Is there adjacent work and/or co-occupancy in work area? ___Yes ___No
Other workers adjacent above or below work area? ___Yes ___No
Did you notify them of your presence? ___Yes ___No
Did you coordinate with adjacent work? ___Yes ___No
Can you proceed with working safely? ___Yes ___No
Barricades Set Up ___Yes ___ No Removed at end of task ___Yes ___No

Pre-Task Review has been completed and each employee is taking the responsibility to ensure that all required training for this work activity is current, and that they are competent and qualified on all required tools/equipment – Print Name and Initial

_____ _____

_____ _____

_____ _____

_____ _____

Contractor Foreman/Superintendent Signature: _____ **Date:** _____

Instructions: Complete this form per task, per day. **1.** Fill in work request number, task, location and date. **2**. List **major work steps** of this task. **3**. Using the back side of this form as a guide, walk-through the work area and list **potential hazards** involved with each work step. **4**. List controls or **safety plan** to mitigate those hazards. **5**. List **required tools** to perform the job safely. **6**. Have each worker review the work area; assist with completing this form and print name and initial. **NOTE**: Multi Craft jobs require each discipline to complete separate form for their task. Review with all workers in work area. Each worker prints name and initials on all worksheets. **7**. Submit a copy of this form to the Construction Manager at completion of day. **NOTE: Work shall stop if conditions change, job scope changes, or a deficiency in the plan is noted. If any injuries or incidents occur, respond as appropriate, than contact the Construction Manager, Inspector, & Procurement Representative immediately** Rev 1 – 01/12/05

Permits/Required Reviews

- ☐ PE Construction Safety Video
- ☐ PE Soil/Concrete Permit Video
- ☐ Facility Work Permit
- ☐ Asbestos Work
- ☐ Concrete Penetration/ Jack hammering Permit
- ☐ Confined Space
- ☐ Critical Lift
- ☐ Building Drain Work
- ☐ Excavation /Shoring Permit (Underground Location)
- ☐ Fire/Burning Permit
- ☐ Hoisting & Rigging
- ☐ Boom Proximity, Assembly/Brkdown
- ☐ Lead Abatement
- ☐ Lock Out/Tag Out
- ☐ Pneumatic Test
- ☐ Roof Access Permit
- ☐ Steel Erection/Decking/ Grating Plan
- ☐ Working Energized Circuits & Equipment
- ☐ Low Voltage Outage Permit

Required PPE

- ☐ Hard Hat/Correct Class
- ☐ Ear Plugs/Ear Muffs
- ☐ Eye Protection
  - Safety Glasses
  - Face Shield
  - Chemical Goggles
  - Welding Hood
- ☐ Hand Protection
  - Arm Sleeves
  - Cut-Resistant Gloves
  - Welders Gloves
  - Surgical Gloves
  - Rubber Gloves
  - Elect Insulated Gloves
  - Other _____
- ☐ Foot Protection
  - Sturdy Work Boots
  - Safety Toe Boots
  - Rubber Boots
  - Rubber Boots cover
  - Dielectric Footwear
- ☐ Respiratory Protection
- ☐ Special Clothing
  - Tyvek
  - Nomex III
  - Rain Suit
  - Safety Vest
  - Other _____
- ☐ Fall Protection
  - Harness
  - Double Lanyard
  - Tool Tethers
  - Anchorage Point
  - Retractable Device
  - Horizontal lifeline system
  - Fall Clearance Distance
  - Fall Rescue/Retrieval Plan

Hazards	Safety Plan
☐ Overhead Utilities	☐ De-energization req. ☐ Insulation blankets req. ☐ Wire watcher req. ☐ Req. clearance distance ☐ Safe work zone marked
☐ Crane or other Lifting Equipment Lifting, Rigging Objects	☐ Signalman assigned ☐ Tag lines in use ☐ Lifting equip inspected ☐ Area around crane barricaded ☐ Rigger Plan/Personal Protected
☐ Aerial Lift/Platform	☐ 100% Tie Off ☐ Daily Inspection ☐ Training Current ☐ Access Permit/Custodial Possession Placard
☐ Electrical	☐ Lock out/Tag out ☐ Required Permit ☐ Multi Energized source? ☐ Confirm equip is de-energized ☐ Review elect safety procedures
☐ Excavations	☐ Required Permit ☐ Inspect prior to entering ☐ Barricades ☐ Proper sloping/shoring ☐ Access/egress provided
☐ Fire Hazard = Cut, Weld, Burn, Grind, Solder	☐ Required Permit ☐ Fire Extinguishers ☐ Fire Watch ☐ Adjacent areas protected ☐ Unnecessary flammable material removed
☐ Vehicular Traffic and/or Heavy Equipment	☐ Traffic Barricades ☐ Cones ☐ Signs ☐ Flagman ☐ Lane closure ☐ Communication with equipment operator ☐ Surface condition
☐ Noise > 85 db	☐ Hearing protection is required ☐ Ear plugs/Muffs
☐ Hand & Power Tools	☐ Inspect general cond. ☐ Identified PPE required for each tool ☐ Review safety operation manual ☐ Guarding OK ☐ GFCI in use
☐ Hand Hazards	☐ Check for sharp tools, materials and equipment ☐ PPE gloves ☐ Protect sharp edges as necessary
☐ Manual Lifting	☐ Review proper lifting tech. ☐ Hand protection req ☐ Clear pathway ☐ Back support belts ☐ Identify material requiring lifting equip
☐ Ladders	☐ Inspect general cond before use ☐ Quarterly Ladder inspection ☐ Ladder tied off ☐ Proper angle/placement ☐ Review ladder safety
☐ Scaffolds	☐ Inspect general cond before use ☐ Tags in place & Properly secured ☐ Footings adequate ☐ Toe boards used ☐ Material properly stored
☐ Slips, Trips, Falls	☐ Inspect for trip hazards ☐ Extension cords properly secured ☐ Work zone free of debris ☐ Tools & Material properly stored
☐ Pinch Points Exposed (Rotating Equipment)	☐ Review area for potential pinch points or exposed rotation equipment ☐ Near operating equip? ☐ Hand/Body position ☐ Loose clothing?
☐ Working w/Chemicals	☐ The task creates potential for direct contact with hazardous chemicals ☐ Review MSDS ☐ Have proper containers & labels ☐ PPE
☐ Heat / Cold Stress Potential	☐ Heat stress monitoring (>85 degrees) ☐ Liquids available ☐ Cool down periods ☐ Sun Screen ☐ Review Heat/Cold stress
☐ Body Mechanics	☐ Proper clothing ☐ Wind chill (<32degrees) ☐ Warm up periods
☐ Environment (Endangered Species)	☐ Air emissions ☐ Water discharge ☐ Hazardous/other wastes ☐ Awareness of endangered Species and habitant area
☐ Natural or Site Hazards	☐ Weather ☐ Terrain ☐ Adjacent operations ☐ Biological hazards ☐ Animal/reptiles/insect hazards
☐ Barricades/Covers for Overhead Work	☐ Caution barricade tape required ☐ Danger barricade tape required ☐ Warning signs ☐ Cover over opening ☐ Rigid railing required
☐ Underground Utilities (Line Locating)	☐ Review as builts ☐ Subsurface surveys ☐ Received dig permit ☐ Required clearance distance ☐ Safe work zone marked ☐ Walk around
☐ Transporting Materials on Vehicle	☐ Tie down all loads ☐ Secure materials on racks ☐ Flag Ext Material
☐ Moving/Falling objects from height	☐ Tether small objects ☐ Use rope, canvas bag ☐ Barricade around potential fall area
☐ Pressurized gas hazard	☐ LOTO process ☐ Take care near small fragile lines
☐ Laser hazard/Beam path	☐ Stay outside of identified areas ☐ Proper laser eyewear
☐ O2 Deficiency, Argon hazard And/or Freon	☐ Observe signs ☐ Use O2 monitor ☐ Involve ESH Team ☐ Sniff before entry
☐ Wall/Ceiling Penetration	☐ Scan area where penetration will take place ☐ Perform Walk Around
☐ Magnetic Field Hazards	☐ No pacemakers, defibrillators ☐ Heed warning signs